

THE INVENTION CLAIMED IS:

1. A safety needle system, comprising:
 - a hub housing having a first end and an opposed second open end with a passageway extending therebetween;
 - an elongated shield housing having a first open end and an opposed second open end with a passageway extending therebetween;
 - a needle cannula having a distal puncture tip, the needle cannula extending from the hub housing with at least a portion of the needle cannula extending through the passageway of the shield housing;
 - a biasing member acting on the shield housing to bias the shield housing from a first biased position adjacent the hub housing toward a second position covering the distal puncture tip of the needle cannula; and
 - an engagement mechanism extending dorsally from the hub housing, the engagement mechanism in releasable engagement with a portion of the shield housing for releasably retaining the shield housing in the first biased position; wherein engagement of the engagement mechanism with the shield housing maintains the shield housing in the first biased position adjacent the hub housing, and wherein activation of the engagement mechanism releases the engagement mechanism from engagement with a portion of the shield housing, thereby releasing the shield housing from the biased position and permitting the biasing member to cause the shield housing to move toward the second position.
2. The safety needle system as in claim 1, wherein the engagement mechanism comprises a first member extending dorsally from the hub housing, and a second member extending from a portion of the first member and in engagement with a portion of the shield housing, the second member moveable with respect to the first member so as to release from engagement with the shield housing.
3. The safety needle system as in claim 2, wherein the shield housing includes a latch element extending dorsally from the shield housing, the latch element

including a recess or opening therein for engagement with the engagement mechanism of the hub housing.

4. The safety needle system as in claim 3, wherein the second member of the engagement mechanism includes a hook element for engagement with the recess or opening of the latch element.

5. The safety needle system as in claim 4, wherein the second member of the engagement mechanism is connected to the first member of the release arrangement through a fulcrum.

6. The safety needle system as in claim 5, wherein the first and second members of the engagement mechanism include corresponding surfaces for movement toward each other about said fulcrum, thereby causing movement of said hook element out of engagement from said recess or opening of said latch element.

7. The safety needle system as in claim 1, wherein said hub housing further comprises structure for attachment to a medical device.

8. The safety needle system as in claim 1, wherein the biasing member comprises a compression spring.

9. The safety needle system as in claim 1, wherein a portion of the shield housing extends within the passageway of the hub housing.

10. The safety needle system as in claim 9, wherein the hub housing further comprises at least one flexible cut out portion along a wall thereof, said flexible cut out portion biased inwardly toward said passageway of said hub housing.

11. The safety needle system as in claim 10, wherein said flexible cut out portion is adapted for engagement with a portion of said shield housing when said

shield housing is in said second position to prevent a return movement of said shield housing to said first position.

12. The safety needle system as in claim 1, further comprising a pair of flexible wings extending from opposing lateral sides of said hub housing.

13. The safety needle assembly as in claim 12, wherein the engagement mechanism extending dorsally from the hub housing bisects the flexible wings extending from opposing lateral sides of the hub housing, and wherein bending of the flexible wings toward a dorsal position does not cause activation of the engagement mechanism.

14. A method for passively activating a safety needle system comprising:

providing a safety needle system comprising a hub housing including a needle cannula extending from a distal end of said hub housing toward a distal puncture tip and a shield housing covering at least a portion of said needle cannula adjacent said hub housing, said safety needle system further including a biasing element for biasing said shield housing toward a shielding position fully covering said distal puncture tip of said needle cannula and a latch mechanism extending dorsally from said safety needle system for maintaining said shield housing in a biased state adjacent said hub housing;

inserting said safety needle system into a patient;

removing said safety needle system from said patient by grasping said latch mechanism, thereby releasing said shield housing from said biased state and causing said shield housing to extend toward said shielding position.

15. The method of claim 14, wherein said hub housing further includes a pair of flexible wings extending from opposing lateral sides thereof, and wherein said inserting step comprises bending said flexible wings to a dorsal position for guiding said needle cannula into the patient.

16. The method of claim 15, wherein bending of said flexible wings to a dorsal position does not cause said latch mechanism to release said shield housing from said biased state.

17. The method of claim 14, wherein the latch mechanism comprises a first member extending dorsally from said hub housing and a second member connected to said first element through a fulcrum, wherein said second element and said shield housing include corresponding structure for latching engagement therebetween, and wherein said withdrawing step comprises grasping said first member and said second member, thereby pivoting said second member about said fulcrum causing release of said corresponding structure from latching engagement therebetween, thereby causing said shield housing to extend toward said shielding position due to said biasing element.

18. The method of claim 17, wherein said corresponding structure for latching engagement comprises a hook element extending from said second member in engagement with a recess or opening within a dorsally extending portion of said shield housing.

19. The method of claim 14, wherein the shield housing is prevented from reexposing the distal puncture tip of the needle cannula once the shield housing has been extended to a fully shielding position.

20. A safety needle system, comprising:

a grippable dorsal housing comprising distal and proximal dorsal housing portions, said proximal dorsal housing portion supporting a needle and said distal dorsal housing portion extendable in an axial direction with respect to said needle from a first position adjacent said proximal housing portion to a second position covering a distal tip of said needle;

a planar wing structure integral to at least one of said proximal and distal dorsal housing portions, said planar wing structure extending generally normal to said grippable dorsal housing;

a biasing element extending between said distal and proximal dorsal housing portions and biasing said dorsal housing portion toward said second position; and

a release element for selectively retaining said distal dorsal housing portion in said first position adjacent said first housing portion against the bias of said biasing element.

21. A safety needle system as in claim 20, wherein said release element comprises a release latch and a receiving element for receiving said latch.

22. A safety needle system as in claim 21, wherein said release latch is integral with said proximal dorsal housing portion.

23. A safety needle system as in claim 21, wherein said receiving element comprises a recess or opening within said distal dorsal housing portion.